

VARENIK, Ye.I.; PETROV, I.A., doktor tekhn. nauk; KANTORER, S.Ye.,
doktor ekon. nauk; GALKIN, I.G., doktor ekon. nauk;
PARABEK, G.E., kand. tekhn. nauk; DUKOV, N.D., kand. tekhn.
nauk; VIKHREV, I.D., kand. tekhn. nauk; SYRISOVA, Ye.D.,
kand. tekhn. nauk; BALIKHIN, M.I., kand. ekon. nauk;
BRISKMAN, I.A., ekonomist

[Organization and planning of construction production] Or-
ganizatsiia i planirovanie stroitel'nogo proizvodstva.
2. izd. [By] E.I.Varenik i dr. Moskva, Stroiizdat, 1965.
531 p. (MIRA 18:2)

PARAUHEK, G.E., dotsent.

Some problems in the quality of construction. Trudy MIEI no.9:

372-382 '58.

(MIRA 11:6)

(Construction industry)

VARENNIK, Ye.I., doktor tekhn.nauk, prof.; KANTORER, S.Ye., kand.tekhn.nauk, dotsent; PARABEIK, G.E., kand.tekhn.nauk, dotsent; GALKIN, I.G., kand.tekhn.nauk, dotsent; PETROV, I.A., doktor tekhn.nauk, prof.; VIKHREV, I.D., kand.tekhn.nauk, dotsent; DIKOV, N.D., kand.tekhn.nauk, dotsent; SYRTSOVA, Ye.D., kand.tekhn.nauk, dotsent; BRISKMAN, I.A., ekonomist; IL'IN, V.M., inzh., nauchnyy red.; LUTYKIN, B.P., ekonomist, nauchnyy red.; SKVORTSOVA, I.P., red.izd-va; GERASIMOVA, G.S., red.izd-va; GOL'BERG, T.M., tekhn.red.; KASIMOV, D.Ya., tekhn.red.

[Organisation and planning in the construction industry] Organizatsiya i planirovaniye stroitel'nogo proizvodstva. Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam, 1961. 526 p. (MIRA 14:12)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Varenik).
(Construction industry)

PARAUBEK, G. E.

PARAUBEK, G. E., dotsent

~~Characteristics of making precast reinforced concrete abroad.~~
Trudy MIEK no. 8:85-108 '57. (MIRA 10:12)
(Precast concrete)

PARAUBEK, G.E., kandidat tekhnicheskikh nauk, dotsent:

Manufacture of precast reinforced concrete abroad. Gor.khoz.Mosk. 30
no.3:31-36 Mr '56. (MIRA 9:7)

1.Moskovskiy inzhenerno-ekonomicheskii institut imeni S.Ordzhonikidze.
(United States--Precast concrete construction)(Europe, Western--Precast
concrete construction)

FIZDEL', I.A., kandidat tekhnicheskikh nauk; PARABEK, G.E., kandidat tekhnicheskikh nauk.

Vibro-vacuum cutting of horizontal boreholes for underground pipelines.
Rats. i izobr. predl. v stroi. no.56:20-27 '53. (MLRA 9:7)
(Boring machinery) (Pipelines)

PARAUBEK, G. Ye.

Boring

Vibratory-vacuum method of conducting underground work. Stroi. prom. 31, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, _____ June _____ 1953, Uncl.

PARAUSANU, V., conf. ing., candidat in stiinte tehnice

Some theoretical and practical problems of metrology.
Metrologia apl 11 no. 8:350-354 Ag '64.

ROUMANIA/Optics -

K-

Abs Jour : Ref Zhur Fizika, No 3, 1960, 7142

Author : Parausanu, V.

Inst : -

Title : Quantum Yield in a Photochemical Process

Orig Pub : An. Prom. -Ser. Ser. chim., 1958, 13, No 4, 47-65

Abstract : Survey article. The principal roles of photo-chemistry,
quantum yield, and its experimental determination are
considered.
Bibliography, 15 titles.

Card 1/1

- 141 -

PARAUSANU, V.

Separation of ions with adjacent physicochemical properties
by diffusion in ion exchangers. Bul Inst Politeh 26 no.3:
81-85 My-Je '64.

1. Laboratory of Physical Chemistry, Polytechnic Institute,
Bucharest.

COUNTRY : Rumania E-10
CATEGORY : Physical Chemistry--radiation chemistry. Photo-
chemistry. Theory of photographic process.
AES. JOUR. : RZKhim, No. 5 1960, No. 1000
AUTHOR : Parausanu, V.
INIT. : Not given
TITLE : The Quantum Yield in Photochemical Processes
ORIG. PUB. : An Rom-Sov, Ser Chim, 13, No 4, 47-65 (1958)
ABSTRACT : No abstract.

CARD: 1/1

45

PARAUSANU, V., conf., candidat in stiinte tehnice

Orientation and development of the scientific research
work at the Metrological Institute. Metrologia apl 10
no.1:1-8 Ja '63.

PARAUSANU, V.I., conf.ing., Candidat in stiinte tehnice

Elaboration of the checking instructions. Metrologia apl 10
no.3:97-100 Mr '63.

PARAUSANU, VICTOR

✓ Cryoscopic measurements in nonaqueous solutions. I. The trichlorides of Group V of the periodic system (PCl_3 , AsCl_3 , and SbCl_3) in benzene solution. Victor PARAUSANU and Octavio LANDAUER (Polytech. Inst. Bucharest). *Bull. Inst. Politehn. Bucuresti* 20, No. 2, 97-102 (1958) (in German).—The f.p. depressions by these halides are normal except for very small deviations attributed to dipole interactions. The assumption that SbCl_3 is assocd. in benzene (Coleman, *et al.*, *C.A.* 49, 12364e) is thus not confirmed.

J. P. Phillips

4
4E10
1-27-50

AUTHORS: Gorshteyn, M. I., Paravoznikov, P. A. SOV/154-58-4-13/18

TITLE: Experience Gained in the Organization and Recording of Settling and of Horizontal Shift in the Structures of the Kakhovka Water Power Development (Opyt organizatsii i provedeniya nablyudeniy za osadkami i gorizontalmymi smeshcheniyami sooruzheniy gidrouzla Kakhovskoy GES)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 4, pp 121 - 136 (USSR)

ABSTRACT: This paper starts with a short description of soil properties at the water power site. Records of the settling of concrete structures have been carried out since August 14, 1953, until now. The measurements were carried out at fixed dates using the bench marks fitted to the individual structure sections by means of closed ore double circuits of a second and third grade leveling. From 1953 - 1955 the leveling of the settling bench marks was carried out by a third grade leveling. As the settling rate decreased the accuracy of the leveling had to be increased. Since 1956 the work is

Card 1/2

Experience Gained in the Organization and Recording of Settling and of Horizontal Shift in the Structures of the Kakhovka Water Power Development SCV/154-05-4-13/18

exclusively done by a second grade standard. The procedures used are described in detail. Recording observations of the horizontal shift of the spillway dam were done by range line measurements, a somewhat modified method being used. The design of the bench marks in the range line of the spillway dam is due to M.S. Murav'yev. Small alterations of this design are suggested. The method of observation employed in this work is simple and it guarantees the required accuracy. There are 8 figures and 2 tables.

ASSOCIATION: Ukrainskoye otdeleniye Gidroenergoprojekta (Ukrainian Branch of the Gidroenergoprojekt)

Card 2/2

PARAVYAN, A. V.

Biology of the tea bush in Bostandyk region of southern Kazakhstan area. A. V. Paravyan. *Vestn. Akad. Nauk Kazakh S.S.R. (10, 1984, no. 30)*, 3-08 (1984).
A description of the most favorable condition for tea growing in the Kazakhstan area. It is shown that $N(10)S(20)$ is the desirable fertilizer for supply of N and for neutralization of carbonates brought in by rain waters. It is shown that during the prolonged winter covering period the tea plants become seriously exhausted as to dry matter and chlorophyll content, although this fact does not prevent their renewed normal growth once the cover is removed.
G. M. Kozlovskii

PARAVYAN, A.V., kandidat biologicheskikh nauk.

**Florescence and fruitfulness of the tea bush in the Bostandykskiy
District of South Kazakhstan Province. Vest.AN Kazakh.SSR 11
no.9:62-69 S '55. (MLRA 9:1)
(Bostandykskiy District--Tea)**

PARAVYAE, A.V.

Results of studying the cultivation of tea shrubs in southern
Kazakhstan. Trudy Glav. bot. sada 5:91-102 '56. (MLRA 9:10)

(Kazakhstan--Tea)

USSR/Cultivated Plants - Subtropical. Tropical.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15833

Author : A.V. Paravyan

Inst : -

Title : Several Features of the Tea Plant in Thriving Conditions
in Bostandykskiy Rayon.
(O nekotorykh osobennostyakh chaynogo rasteniya v uslo-
viyakh proizrastaniya v Bostandykskom rayone).

Orig Pub : Izv. AN KazSSR, biol., 1957, vyp. 1, 13-25.

Abstract : In the ordinary method of tea seed sowing in the ground
the first year seedlings do not complete more vegetatio-
nal development than the lengthy seed germination phase
and a short vegetational period. To ripen tea seedlings
at a height of 1000-1700 meters above sea level it is
necessary to warm up the seeds prior to sowing. This
heating up is done in sand for 15 days, the daily tempe-
rature in the sun was 16-20°, the water used for

Card 1/2

PARAVYAN A. V.

COUNTRY : USSR
CATEGORY :

M-2

Acq. No. : RZbiol., 10, 49, 1977, 10. 5(9)

AUTHOR : Paravyan, A. V.
INST. : Institute of Botany, Academy of Sciences
ITIL : General results of a series of experiments
on cultivation of tea plants in
conditions of Stanlyk district.

ABST. PMA : Dr. Stanlyk, 1977, 5,
111-112

ABSTRACT : Brief description of the causes of failure
of tea plants with tea plants during the period from 1974 to
1976. Work on acclimatization of tea plants was conducted
in 1974-1976 on brown loess soil of nearly neutral re-
action. During the first period of the work (1974-1975) it
was established that tea can not be grown on non-irrigated
land within area of irrigation farming, and a system was
developed for control of soil water. During the second
period agricultural technology procedures were evolved.
It was found best to work the soil to a depth of 50 cm.
to plant on terraced beds 3.5 m wide, in furrows, sowing
the rows 1.5 m apart, and planting 0.8 m apart in a row.

CARD: 1/5

COUNTRY : USSR
CATEGORY :

ABST. JOUR. : RZBiol., No. 19, 1968, No. 450

AUTHOR. :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : Seedlings received a height of 12 cm and
developed 10 to 12 leaves. Plants in their second year,
and older, started active growth from first days in May,
and also exhibited the signs of growth. A total of 17
plants reached 17 cm and developed 10 to 12 leaves. Growth
of the third year -- 40 cm and 15 leaves. Growth of roots
started in mid-April and ceased in November. During the
first 3 years the plants grew better in light shade. A
medium was developed, of plants in deep holes which
were gradually filled in the remaining year. Up to three
years growth takes place from terminal bud, pruning did
not cause sprouting and only weakened the plants. From

CARD: 3/5

USSR/Cultivated Plants - Subtropical. Tropical.

M.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44363

Author : Paravyan, A.V.

Inst : AS Kazakh SSR

Title : Experimentation on Tea Shoot Culture Under the Conditions of Dostandykskiy Rayon.

Orig Pub : Vestn. AN Kazakh SSR, 1957, No 6, 60-70

Abstract : In the search for the methods of growing tea bushes in the southern oblasts of Kazakhstan and central Asia (where the absolute minimum temperature reaches -20, -25°) which would protect the tea plants from freezing, the author staged a series of experiments on their preservation in the winter time. The experiments were based on the utilization of the positive reaction of the tea bush to pruning. The pruning of bushes of different ages ranging

Card 1/2

- 183 -

PARAVIAN, A.V., Doktor biol. nauk; UCHENINOV, O.A.

Improving the quality of maize seeds of Solanum aviculare.
Vest. AN Kazakh. SSR 21 no.12:72-74, D '65. (MIRA 18:12)

~~PARAVYAN, A.V.~~, kand.biolog.nauk; DOBRUNOV, I.G., doktor biolog.nauk;
DARKANBAYEV, T.B., professor; BARANOVSKIY, P.M.; MOSKVICHEVA,
L.B., red.; RZHONDKOVSKAYA, L.S., red.; ROROKINA, Z.P., tekhn.red.

[Proceedings of the Interrepublic Scientific Conference of Plant
Physiologists and Biochemists] Trudy Mezhrеспублиkanskoj nauchnoi
konferentsii fiziologov i biokhimikov rastenii. Alma-Ata, 1958.
203 p. (MIRA 12:2)

1. Mezhrеспублиkansкая nauchnaya konferentsiya fiziologov i
biokhimikov rasteniy. Alma-Ata, 1956. 2. Institut botaniki AN
KazSSR (for Paravyan, Dobrunov, Darkanbayev). 3. Kazgosuniversitet
im. S.M. Kirova (for Darkanbayev). 4. Chlen-korrespondent AN
KazSSR (for Dobrunov, Darkanbayev).
(Biochemistry) (Botany--Physiology)

PARAVYAN, A. V.: Doc Biol Sci (diss) -- "Experiment to acclimatize the tea plant in the dry subtropics of Central Asia". Leningrad, 1959. 33 pp (Acad Sci USSR, Botanical Inst im V. L. Komarov), 175 copies (KL, No 12, 1959, 127)

PARAVYAN, Ararat Vertazarovich; MOSKVICHEVA, L.N., red.; ROROKINA, Z.P.,
tekh.red.

[Acclimatization of the tea plant under mountain conditions of
Central Asia] Opyt akklimatizatsii chainogo kusta v gornyykh
usloviyakh Srednei Azii. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi
SSR, 1960. 264 p. (MIRA 13:6)
(Bostandykskiy District--Tea) (Acclimatization (Plants))

CHILINGARYAN, A.M.; PARAVYAN, Ye.N.

Reactions of the capillary-nuclear substance of the adrenal glands of some animal species. Izv. AN Arm. SSR. Biol. nauki 17 no.11:85-89 N '64 (MIRA 18:2)

1. Institut fiziologii im. L.A. Orbeli AN ArmSSR.

PARAVYAN, Ye.N.

Histochemical study of the activity of acid brain phosphatase
in various species of animals with different pH values. Izv.
AN Arm. SSR Biol. nauki 17 no.9:35-41 S '64 (MIRA 18:1)

1. Institut fiziologii imeri L.A. Orbeli AN Armyanskoy SSR.

FANARDZHIAN, V.V.; CHILINGARYAN, A.M.; PAPOYAN, Ye.V.; PARAVYAN, Ye.N.

Regeneration of the cerebral cortex and cerebellum in ontogenesis.
Dokl. AN Arm. SSR 34 no.3:117-121 '62. (MIRA 15:5)

1. Institut fiziologii imeni akademika L.A. Orbeli AN Armyanskoy
SSR. Predstavleno chlenom-korrespondentom AN Armyanskoy SSR
A.M. Aleksanyanom.

(CEREBRAL CORTEX)
(REGENERATION (BIOLOGY))

(CEREBELLUM)
(ONTOGENY)

PARAYEV, A.G., kand. tekhn. nauk

Dynamical calculations for the protective devices of plows.

Dynamical calculations for the progressive
Trakt. i sel'khozmasb. no.10:31-33 0 '64.

(MERA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

PARAYEV, A.G., kand. tekhn. nauk

Analyzing the forces acting on a plow in rocky soils. ^{Trudy}
VISHOMA no.37:30-50 '63. (MIRA 17:9)

PARAYEV, A.G., kand. tekhn. nauk

Determining impact forces acting on tractor-driven plows. Trakt.
i sel'khoz mash. no. 3:14-16 Mr '65. (MIRA 18:5)

L. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystven-
nogo mashinostroyeniya.

PARAYEV, A.G., kand. tekhn. nauk

Creation of standardized multipurpose plows. Trakt. i sel'khoz-
mash. no.11:31-34 N '65. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokho-
zyaystvennogo mashinostroyeniya.

PARAYEV, P.A.

Miner's sun. Zdorov'e 5 no.6:11 Je '59. (MIRA 12:11)

1. Makeyevka, shakhta im. Il'icha.
(ULTRAVIOLET RAYS--THERAPEUTIC USE)

ZHORDANINA, Iosif Fedorovich, prof.; PARAY-KOSHITS, K.V., red.;
KUZ'MINA, N.S., tekhn.red.

[Textbook of obstetrics] Uchebnik akusherstva. Izd.4.,
stereotipnoe. Moskva, Meditsina, 1964. 599 p.
(MIRA 17:3)

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L 46655-66 EWT(d) EWP(v) EWP(r) EWP(h) EWP(l) BC

ACC NR: AP6021390

SOURCE CODE: UR/0103/66/000/006/0061/0071

AUTHOR: Parayev, Yu. I. (Tomsk)

ORG: none

TITLE: Optimal control of stochastic systems

SOURCE: Avtomatika i telemekhanika, no. 6, 1966, 61-71

TOPIC TITLE: stochastic process, optimal control, linear automatic control system, filter circuit

ABSTRACT: The author considers the problem of finding the optimal control for a system, the behavior of which can be described by linear stochastic differential equations. A further assumption regarding this system is that its phase coordinates can be measured only with random errors having a normal distribution. Separate sections of the article deal with the formulation of the problem, the solution, an example illustrating the use of the method proposed, and, finally, an appendix devoted to the proof of the principal theorem. It is pointed out that the proof given is valid both for continuously executed measurements as well as for discrete measurements. Orig. art. has: 68 formulas.

SUB CODE: 312/ SUBM DATE: 20Dec65/ ORIG REF: 007/ OTH REF: 009

Card 1/1 *eyh*

UDC: 62-505

ACC NR: AT6022235

SOURCE CODE: UR/0000/66/000/000/0009/0014

AUTHOR: Parayev, Yu. I.

ORG: none

TITLE: On the problem of random dynamic signal filtering

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektziya radiotekhniki. Doklady. Moscow, 1966, 9-14

TOPIC TAGS: signal noise separation, optimal automatic control, finite memory

ABSTRACT: The problem of filtering a signal representing the coordinates of some dynamic system which is described by a system of linear stochastic differential equations is analyzed. It is assumed that the desired signal $x(t)$ is corrupted by a random Gaussian noise signal whose average value is zero. First $x(t)$ is measured resulting in function $z(t)$ at time T from the results of measurement, i.e. $z(t)$. The estimate must minimize the average value of the loss function which is in the positive quadratic form. The desired estimate is the maximum likelihood estimate which may be computed with the aid of a finite memory linear filter method. The presented solution remains in a generalized integral form when the measurement noise signal vector does not contain white noise as one of its components. The analyzed problem has applications in the optimal control of dynamic systems. Orig. art. has: 17 formulas.

SUB CODE: 0913 SUBM DATE: 16Mar66/ ORIG REF: 003/ OTH REF: 003

Card 1/1

PARAYEV, Yu.I. (Tomsk)

Optimum control processes with stochastic feedback. Avtom. i telem.
26 no.10:1672-1681 O '65. (MIRA 18:10)

FARAYEV, Yu.I. (Toms'k)

Solution of a problem on the analytical design of controllers.
Avtom. i telemekh. 25 no.4:445-451 Apr '64. (MIRA 1:4)

T. 36975-66 EWT(d)/IWP(1) IJP(c)

ACC NR: AP6008523

SOURCE CODE: UR/0280/66/000/001/0087/0094

AUTHOR: Parayev, Yu. I. (Tomsk)

41
B

ORG: none

TITLE: The prediction of trajectories of stochastic systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1966, 87-94

TOPIC TAGS: stochastic process, dynamic system, nonwhite noise, Gaussian noise, WHITE NOISE

ABSTRACT: A new solution of the problem due to R. E. Kalman and R. S. Bucy (Trans. ASME, J. Basic Engineering, 1961, v. 83, No. 1) concerning the prediction of trajectories of stochastic systems is presented. In contradistinction to other similar solutions which deal only with cases involving white noises, the new approach is applicable to the case of nonwhite Gaussian noise. The formulation of the problem is followed by a discussion of the probabilistic characteristics of the process, the establishment of the optimum estimate for the k-dimensional vector of phase coordinates of the system, the incorporation of a priori data, and a comparison of the new solution with the results of other authors using a first order system. Evidently, the conclusion that the dispersion of estimates in integral form is no worse, and in many cases considerably better, than the dispersion of estimates in differential form can be generalized to include

Card 1/2

L 38596-63 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(1) Pg-4/Pu-4/Pk-4/P1-4 IJP(c) NW/BC

ACCESSION NR: AR5006748

S/0044/64/000/012/V044/V044

SOURCE: Ref. zh. Matematika, Abs. 12V244

AUTHOR: Parayev, Yu. I.

TITLE: Optimal control in the presence of incomplete information on the coordinates of the controlled object. Part I

CITED SOURCE: Tr. Sibirsk. fiz.-tekh. in-ta pri Tomskom un-te, vyp. 44, 1964, 103-109

TOPIC TAGS: control theory, probability estimation, optimization, credibility function, control system

TRANSLATION: A control system is investigated, consisting of an n -dimensional regulation object A , a mechanism C , measuring the coordinates of the object A with an accuracy up to an error of $\Delta(t)$, and a control mechanism B . It is shown that finding the optimal control in the presence of incomplete information about the coordinates of the regulation object leads to a solution of the general equation of maximum credibility. The construction of the credibility functional for the discrete and continuous cases is carried

1 38596-65

ACQUISITION NO. 42149740

... of the problem of finding an optimal control in the presence of uncertainty in the system parameters. The problem is a difficult mathematical problem and that therefore the reduction of uncertainty in the generation of constructing an effective control system will be unnecessary.

FILE CODE: 12

L 1288-56 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) LJP(c) WA/BC
 ACCESSION NR: AR5009080 UR/0271/65/000/003/A027/A027 36
 62-505
 SOURCE: Ref. zh. Avtomatika, telemekhanika, i vychislitel'naya tekhnika. Svochnyy
 tom, Abn. 3A153
 AUTHOR: Parayev, Yu. I.
 TITLE: Optimal control with incomplete information about plant coordinates
 CITED SOURCE: Tr. Sibirsk. fis.-tekh. in-ta pri Tomskom un-te, vyp. 44, 1964,
 110-117
 TOPIC TAGS: optimal control
 TRANSLATION: A case is considered when point $x^0(T)$ whereto the plant migrates
 under optimal-control conditions lies within G^1-G^N region, where $G^N-G^N(x(0)T)$
 is a region of the space X ; the plant can be transferred from point $x(0)$ to the
 above region by means of at least one control of the $U[0,T]$ class. It is shown
 that the determination of the optimal control in this case can be reduced to
 an optimal evaluation of the N -parameter which is an optimal control in a
 determinate case. Bibl. 2.
 SUB CODE: IE ENCL: 00
 Card 1/1 *mlr*

L 01456-66 EWT(d)/EPF(n)-2/EPF(1) IJP(c) WW/DC

ACCESSION NR: AR5017749

UR/0372/65/000/006/G003/G003
62-505

SOURCE: Ref. zh. Kibernetika. Svodnyy tom, Abs. 6617

AUTHOR: Parayev, Yu. I. 55

TITLE: Using the Ritz method for solution of the problem of analytic controller design

CITED SOURCE: Dokl. 3-y Sibirsk. konferentsii po matem. i mekhan., 1964. Tomsk, Tomskiy un-t, 1964, 279-280 55

TOPIC TAGS: automatic control theory, automatic control design, automatic control system 9.55

TRANSLATION: The author examines the problem of analytic controller design. The behavior of an automatic control system is described by a system of differential equations in matrix form: $\dot{X} = A(t)X + B(t)u$. It is necessary to find a control $u(t)$ for a fixed time period $[0, T]$ for which the functional

$$J(u) = \frac{1}{2} X^*(T) E X(T) + \frac{1}{2} \int_0^T [X^*(t) C(t) X(t) + u^*(t) u(t)] dt$$

Card 1/2

L 01256-66

ACCESSION NR: AR5017749

takes on the smallest value. E and $C(t)$ are given by positive definite matrices. A method is given for setting up a sequence of equations, and it is proved that this sequence converges to the optimum equation. B. S.

SUB CODE: DP

ENCL: 00

Card 2/2

AUTHOR: Parayev, Yu. I. (Tomsk)

TITLE: The influence of measuring instrument characteristics on the predictions of trajectories of physical processes

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1965, 24-30

TOPIC TAGS: measuring instrument, error minimization, error prediction

ABSTRACT: A discussion is given of the influence of the characteristics of the measuring instruments registering the coordinates of a certain physical process and of the errors accompanying such measurements on the accuracy of trajectory prediction for the given process. Only an a priori distribution of the initial values of a k-dimensional vector representing the physical process is known and the measuring instrument is known to introduce random errors. The problem reduces to 1) establishing an estimate (on the basis of the measurement results) minimizing the value of the loss function describing the prediction results; and 2) choosing the best (in the sense of the minimum of the loss function) measuring device. These two problems are treated at considerable length and the solution of the linearized problem is applied to a) the case of discretely performed measurements and b) the case of continuous measurements. Orig. art. has: 39 formulas.

Card 2

128-94-61 EWT(d)/EPP(n)-2/EWP(v)/EWP(k)/EWP(n)/EWP(1) Po-4/Pq-4/Pf-4/
Pg-4/Pt-4/Pk-4/P1-4 IJP(c) HW/BC

ACCESSION NR: AR5006749

S/0041/64/000/012/V044/V045

SOURCE: Ref. zh. Matematika, Abs. 12V245

AUTHOR: Parayev, Yu. I.

TITLE: Optimal control in the presence of incomplete information on the coordinates of the controlled object. Part II

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 44, 1964, 110-117

TOPIC TAGS: control theory, statistics, probability estimation, optimum control

TRANSLATION: For Part I see abstract 12V244. An approximate method is investigated for finding the optimal control, based on the construction of an optimal estimate for the parameter w , by means of which the optimal control in the determinate case is exhibited. The cases of bounded, unbounded, and relay controls are analyzed in detail. V. Mostitskiy.

ENCL: 00

SUB CODE: IE

Card 1/1

ACCESSION NR: AP4024678

S/0103/64/025/002/0167/0176

AUTHOR: Parayev, Yu. I. (Tomsk)

TITLE: One problem of analytical designing of controllers

SOURCE: Avtomatika i telemekhanika, v. 25, no. 2, 1964, 167-176

TOPIC TAGS: automatic control, optimized automatic control, automatic control designing, automatic control analytical designing

ABSTRACT: A generalization of A. M. Letov's problem (Avtomatika i telemekhanika, v. 21, nos. 4-6, 1960; v. 22, no. 4, 1961; v. 23, no. 11, 1962) is considered. These conditions of optimality are formulated: (a) The control is permissible, i. e., $u(t)$ is a continuous or a piecewise-continuous function of time, and at each moment of time $t \in [0, T]$ $u(t) \in \bar{U}_0$, where U_0 is a region in the space U ; (b) When the system is transferred from the phase point $x(0)$ to the phase point $x(T)$, the functional representing the figure of merit is at its

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ACCESSION NR: AP4024678

minimum, while $E_x(T) = 0$, where E is an n -th order diagonal matrix in which first k ($0 \leq k \leq n$) diagonal elements are equal to 1, the rest $n-k$ are equal to zero. L. S. Pontryagin's principle of maximum is used in solving the above problem. An optimum control with and without restraint imposed on its scope is analyzed, and its order is determined. Orig. art. has: 41 formulas.

ASSOCIATION: none

SUBMITTED: 26Nov62

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: CG, IE

NO REF SOV: 008

OTHER: 000

Card 2/2

16.8000

S/103/62/023/009/003/007
D201/D308AUTHOR: Parayev, Yu. I. (Tomsk)TITLE: Special control in optimum processes which are linear
with respect to the control actionPERIODICAL: Avtomatika i telemekhanika, v. 23, no. 9, 1962, 1202-
1209

TEXT: The author considers the application of L. S. Pontryagin's principle of maximum to control processes which are described by a system of ordinary differential equations whose right-hand sides are linear with respect to the control actions. It is assumed that a new variable, corresponding to the optimization condition, has been added to the equations and that the right-hand side functions can be differentiated with respect to all coordinates of the generalized coordinate system. If the optimum control is sought within the time interval $(0, T)$ in the form of piecewise continuous functions belonging to a closed domain U , then the components of optimum control have to satisfy the condition $U_j = \text{sign } W_j$ ($j = 1, 2, \dots$)

Card 1/2

Special control in ...

S/103/62/023/009/003/007
D201/D308

m), W_j being supplementary variables. The special control, so called after L. I. Rozonoer (Avtomatika i telemekhanika, v. 22, no. 10-12, 1959), occurs when some of the components of vector W are zero within a certain interval of time, so that the corresponding control vectors in this interval are within the domain U . The author analyzes the conditions under which the special control exists, derives formulae for special control components, proves that the special control is an optimum control for the case when only one of the coordinates of the generalized coordinate system has to be minimized and discusses the particular control in uni-dimensional systems. The case of special control in multi-dimensional systems is analyzed in an appendix.

SUBMITTED: January 9, 1962

Card 2/2

PARAYEV, Yu. I. (Tomsk)

Concerning special control in optimum processes linear in respect
to the control actions. Avtom. i telem. 23 no.9:1202-1209 S '62.
(MIRA 15:10)

(Automatic control)

PARAYEV, Yu.I.

Concerning the self-adjusting threshold of quantization.
Izv. vys. ucheb.; radiotekh. 5 no.1:134-137 Ja-F '62. (MIRA 15:5)

1. Rekomendovano kafedroy elektronnoy vychislitel'noy tekhniki
i avtomatiki Tomskogo gosudarstvennogo universiteta imeni
V.V. Kuybysheva.

(Electronic digital computers)
(Information theory)

MEDVEDEV, G.A.; PARAYEV, Yu.I.

In regard to I.A.I. Khurgin's article "Effect of a pulse process with
independent intervals on a capacitative storage circuit." Radiotekh.
i elektron. 5 no. 10:1745-1746 0 '60. (MIRA 13:10)
(Pulse techniques (Electronics))
(Khurgin, I.A.I.)

ACCESSION NR: AR4039858

S/0044/64/000/004/V026/V026

SOURCE: Ref. zh. Matematika, Abs. 4V147

AUTHOR: Parayev, Yu. I.

TITLE: On a quantizer with self-tuning threshold.

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta, vy*p. 42, 1963, 196-201

TOPIC TAGS: quantizer, self tuning threshold, binary communication system, statistical analysis, priori distribution, posteriori distribution

TRANSLATION: A signal received in a binary communication system, discrete with time, is characterized by a parameter λ , which is equal to zero upon transmission of the zero signal, and is equal to a upon transmission of the unity signal. It is assumed that the exact value of the parameter a is not known, but an a priori distribution $f(a)$ is given, and the transmission is made in the presence of noise. The reception is realized by a self-tuning system, which effects a comparison of the signal received with a threshold k , the magnitude of which varies with time. It is assumed that k can take two values, k_1 and k_2 . The choice of the value of

Card 1/2

ACCESSION NR: AP4035069

S/0103/64/025/004/0445/0451

AUTHOR: Parayev, Yu. I. (Tomsk)

TITLE: Solution of one problem of analytical constructing of controllers

SOURCE: Avtomatika i telemekhanika, v. 25, no. 4, 1964, 445-451

TOPIC TAGS: automatic control, controller, automatic controller, dynamic programming, optimized automatic control

ABSTRACT: By a method of dynamic programming, this problem is solved: Find such a continuous function $u(t)$ within $[0, T]$ that the functional (1.2) is minimized and the condition $Ex(t) = 0$ is satisfied when the system (1.1) is transferred from the phase point $x(0)$ to the point $x(T)$; here: $\dot{x} = A(t)x + B(t)u$. (1.1) is the matrix differential equation describing the automatic-control system; x is the column-vector of the n -th order whose components are the phase coordinates of the system; u is the column-vector of the m -th order whose components are

Card 1/2

L 812-66 EPE(n)-2/EWT(d)/FNP(1) TIP(c) NW/BC
 ACC. No: AP5028951 SOURCE CODE: UR/0103/65/026/010/1672/1681

AUTHOR: Parayev, Yu. I. (Tomsk)

ORG: None

TITLE: Optimal control processes with stochastic feedback

SOURCE: Avtomatika i telemekhanika, v. 26, no. 10, 1985, 1672-1681

TOPIC TAGS: optimal automatic control, stochastic process, automatic control system, electronic feedback

ABSTRACT: The author considers the problem of an automatic control system, the behavior of the control member of which is described by the system of differential (written in matrix form)

$$\dot{x} = f(t, x, u). \quad (1.1)$$

Here x is an n -dimensional vector-column characterizing the state of the controlled member in phase space X , and u is an m -dimensional vector column characterizing the controlling actions defined in space U . It is necessary to find a control $u(t)$ in the course of a fixed time interval $[t_0, T]$ such that the functional

$$J(u) = \int_{t_0}^T V_1(t, x, u) dt + V_2(T, x(T)) \quad (1.2)$$

will assume the minimum value. The problem is subdivided into problems A and B, as

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UDC: 62-505

L 8182-66

ACC NR AP5026951

follows: (A) To find a functional $u(t) = \underline{L}\{t, \cdot, \cdot\}$ which, when substituted into (1.1), and when the expression

$$z(t) = g(t, x(t)) + n(t), \quad (1.4)$$

is considered, provides for a minimum of the mean value of functional (1.2). (B) In an automatic control system the behavior of which is described by the system of differential equations

$$\dot{y} = Ay + Bv, \quad (2.7)$$

and having a measuring instrument characterized by the transformation

$$w(t) = S(t)y(t) + n(t). \quad (2.8)$$

it is necessary to find a functional $v(t) = L\{t; w_n; v(t_0, t)\}$ or $v(t) = L\{t; w(t_0, t); v(t_0, t)\}$ such that, when substituted into (2.7), allowing for (2.8), it provides for a minimum of the mean value of the functional

$$I(v) = \frac{1}{2} \int_{t_0}^T (y^T C y + v^T D v + 2y^T H v) dt + \frac{1}{2} y^T(T) E(T) y(T). \quad (2.9)$$

Problem B is one involving an analytic construction of controllers with stochastic

Card 2/3

ACC NR: AR6026528

SOURCE CODE: UR/0372/66/000/004/G019/G019

AUTHOR: Parayev, Yu. I.

TITLE: Solution of a problem of the analytic design of controls

SOURCE: Ref. zh. Kibernetika, Abs. 4G131

REF SOURCE: Tr. Sibirsk. fiz. - tekhn. in-ta pri Tomskom un-ta, vyp. 47, 1965, 81-87

TOPIC TAGS: unmanned space flight, space vacuum, optimal control, spacecraft design, mathematic analysis

ABSTRACT: A problem of the motion of a pilotless spacecraft in a void and in the absence of a gravitational field is considered. This spacecraft must be so guided as to reach a specified point A in space. It is assumed that the spacecraft moves in the plane of point A and that the equations of motion are

$$\begin{aligned} \dot{x} &= -V_x, \dot{y} = -V_y, \dot{\varphi} = Q \cos \varphi, \dot{V}_x = \\ &= -Q \sin \varphi, \dot{V}_y = 0, \dot{m} = -\mu(t); \end{aligned}$$

V_x, V_y are the projections of relative velocity onto the axes Ox and Oy ; φ is the angle between

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UDC: 62-505

Card 2/2

ACC NR: AR6026529

SOURCE CODE: UR/0372/66/000/004/G019/G019

AUTHOR: Parayev, Yu. I.

TITLE: Optimal control of dynamic systems in a stochastic case

SOURCE: Ref. zh. Kibernetika, Abs. 4G132

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 65-80

TOPIC TAGS: optimal control, dynamic system, stochastic process, functional equation

ABSTRACT: The problem of finding the optimal control for a dynamic system subject to noise is considered, on condition that output signals from this system arrive at the input of a device for calculating optimal control in the presence of noise. A method of determining the distribution densities characterizing the solution of equations describing the behavior of the system and the measuring device is described. The formulation and methods of solution of the problem of determining the optimal controlling element are discussed on the premise that the system continues to perform over a fixed time interval. The quality of the control is characterized by the functional

$$J[0, T] = \Phi_1(T, x(T)) + \int_0^T \Phi_2(t, x, u) dt.$$

4 illustrations, bibliography of 23 titles. V. S. [Translation of abstract].

SUB CODE: 09, 12, ~~13~~

UDC: 62-506

Card 1/1

PARAYEV, Yu.I. (Tomsk)

Effect of the characteristics of measuring devices on the
accuracy of the prediction of the trajectories of physical
processes. Izv. AN SSSR. Tekh. kib. no.4:24-30 J1-Ag '65.
(MIRA 12:11)

ALC
7-10-50

Handwritten: Potentiometric titration

POTENTIOMETRIC TITRATION WITH SODIUM FLUORIDE by V. M. Puzos, *Anal. Chem.* 24, 1425 (1952)

Beryllium may be titrated with sodium fluoride by the potentiometric method used by
 Russell and Wrayson for beryllium (ref. 1, p. 1425) for determining
 aluminum. Beryllium, like aluminum, forms complexes of the type $MBeF_4$ and BeF_4^{2-}
 where M is a divalent metal, which, however, unlike the aluminum complexes, are
 easily soluble in water. With beryllium, hydroxyl ions are formed during the titration
 apparently beryllium is in the form of a salt which loses its hydroxyl as the
 complex is formed. This prevents a sharp change of potential at the equivalence
 point as the initial pH is about 10. Temperature has no effect on the titration, but
 aluminum is a serious interference.

[illegible]

VANYUKOV, M.P.; MAK, A.A.; PARAZINSKAYA, N.V.

Investigating the luminosity of spark discharge channels in argon
and xenon atmospheres. Opt. i spektr. 1 no. 5:642-649 S '56.
(Electric discharges through gases) (MLRA 9:11)
(Argon--Spectra) (Xenon--Spectra)

3

L 54555-65 ENT(m)/ENG(m)/ESP(1) Pc-4 RWH/RM 24

ACCESSION NR: AP5016713 UR/0286/65/000/010/0016/0016

AUTHORS: Samborskiy, I. V.; Pashkov, A. B.; Saldadze, K. M.; Grachev, L. L.;
Chetverikov, A. F.; Parbafenkov, A. N.; Perevozkina, G. A.; Kas'yanenko, Ye. I.

TITLE: A method for producing ion exchangers. Class 12, No. 170908 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 16

TOPIC TAGS: ion exchanger, chemical production, filler, cotton, fiber

ABSTRACT: This Author Certificate presents a method for producing ion exchangers by mixing (in a determined order) the combined components, heating, holding, cooling, and consolidating the reactive mass, which is finally crumbled and dried. To improve the mechanical, filtering, and absorption properties of the exchangers, a fibrous filler, such as cotton floss, is introduced into the reactive mixture before drying.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics)

SUBMITTED: 24Jul64 ECL: 00
 NO REF SOV, 000 SUB CODE: 00
 Card 1/1 OTHER: 000

PARBULIN, V.S.; PANCHENKOV, G.M.

Temperature dependence of the coefficients of separation of isotopic molecules D_2-H_2 , D_2-HD , and $HD-H_2$ on synthetic zeolites NaA and NaX in the case of sorption under isobaric conditions. Dokl. AN SSSR 164 no.4:856-859 O '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet. Submitted March 8, 1965.

KUZNETSOVA, Ye.M.; MAKAROV, A.V.; PANCHENKOV, G.M.; PARBUZIN, V.S.

Estimation of the once-through isotope separation coefficient from data on the equilibrium operation of a column with a draw-off pan. Zhur. fiz.khim. 37 no.10:2349-2350 0 '63. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

PARBUZIN, V.S.; NIKITIN, O.T.; GIKYAZNOVA, S.V.; PANCHENKOV, G.M.

"Trennung der Isotope des Wasserstoffs an Kobalt-Molekularsieben"

Third Working Conference on Stable Isotopes, 28 October to 2 November 1963, Leipzig.

s/191/63/000/004/003/015
B101/B186

AUTHORS: Parbusina, I. L., Sokolov, N. N., Shuykin, N. I.,
Karyshkina, T. I.

TITLE: Methyl-3,6 endomethylene-1,2,3,6-tetrahydrophthalic anhydride
used as a curing agent for epoxy resins

PERIODICAL: Plasticheskiye massy, no. 4, 1963, 12 - 13

TEXT: Methyl-3,6-endomethylene-1,2,3,6-tetrahydrophthalic anhydride (META) was synthesized from methyl cyclopentadiene obtained by dehydrogenation of methyl cyclopentene at 600°C with an alumina chromium - potassium catalyst. Small portions of maleic anhydride had been added to this catalyst containing 5% methyl cyclopentadiene, at - 5°C. It was then kept at 50°C for 40 min. The raw product, an oily liquid at room temperature contained 7.2% free maleic anhydride. Attempted purification failed since decomposition set in on distillation in vacuo, maleic anhydride being liberated. The effect of META as a curing agent was tested by means of ЭА-6 (ED-6) epoxy resin. 100 parts by weight of ED-6 was mixed with 70 parts by weight of META, cured at 150°C, and then kept at 180°C for 6 hrs. The cured resin

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Methyl-3,6...

S/191/63/000/004/003/015
B101/B186

had an impact strength of 108 kg-cm/cm^2 and a Martens heat resistance of 100°C . Its loss in weight when kept at $200 - 250^\circ\text{C}$ for 2 - 10 days was 0.29 - 5.06%. As compared with phthalic or maleic anhydrides used as curing agents, META reduces the glass transition point T_g by $30 - 40^\circ\text{C}$ to $\sim 70^\circ\text{C}$; the softening point of the resin was 300°C . Except for a reduction of T_g , Martens heat resistance, and volume resistivity ($2.6 \cdot 10^{15} \text{ ohm-cm}$), the physicochemical and dielectric properties of resin cured with META were the same as those of resins cured with other aldehydes. The great advantage of META is that it is unpoisonous, that it mixes easily with the epoxy resin at $20 - 30^\circ\text{C}$, and that the mixture remains unchanged for many weeks at 70°C . There are 1 figure and 2 tables. The most important English-language references are: M. M. Lee, R. D. Hodges, Plast. Technol., 6, no. 4, 43 - 48, 50 - 53 (1960); B. H. Muller, C. A. Harper, Electr. Manufact., 65, no. 2, 119 (1960).

Card 2/2

GOSTEVA, O.K.; PARBUZINA, I.L.; AKUTIN, M.S.; SOKOLOV, N.N.; RUNOVA, S.M.

Epoxy resins with higher thermal resistance. Chem prum 14 no.6:
304-306 Je '64.

1. State Research Institute of Plastics, Moscow.

PARBUZINA, I.L.; SOKOLOV, N.N.

Cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalic anhydride as
a hardener of epoxide resins. Plast.massy no.2:69-71 '63.

(MIRA 16:2)

(Phthalic anhydride)

(Epoxy resins)

PARBUZINA, I.L.; SOKOLOV, N.N.; SHUYKIN, N.I.; NARYSHKINA, T.I.

Methyl-1,2,3,6-tetrahydro-3,6-endo-methylenephthalic anhydride as a
hardening agent for epoxide resins. Plast.massy no.4:12-13 '63.

(MIRA 16:4)

(Epoxy resins) (Norbornenedicarboxylic anhydride)

3/191/63/000/002/019/019
B101/B186

AUTHORS: Parbuzina, I. L., Sokolov, N. N.

TITLE: Cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalic anhydride
used as curing agent for epoxy resins

PERIODICAL: Plasticheskiye massy, no. 2, 1963, 69-71

TEXT: Basing on Western data (B. H. Müller, C. A. Harper, Electr. Manufact., 65, no. 2, 119 (1960); USA patents 1944731, 1944732 (1934)), cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalic anhydride (I) was synthesized and tested as curing agent for 3A-6 (ED-6) epoxy resin; its effect was compared with that of phthalic (II), maleic (III), and methyl-tetrahydrophthalic (IV) anhydrides. 64.8 g I, 59.0 g II, 40.0 g III, or 60.4 g IV was taken per 100 g of ED-6. The resin compounds were cured at 150°C and then heated to 180°C for 6 hrs. Results: T_g was not affected by any aldehyde, it lay between 105 and 115°C. With I, the high-elastic deformation was especially great and could not be reduced by 2 hrs heating to 200°C. To accelerate the curing an addition of 1% dimethyl amino methyl phenol or benzyl dimethyl amine is recommended. The loss in weight after Card 1/2

15.8106

2109, 1526, 1460, 2209

81506
S/190/60/002/004/007/020
B004/B056

AUTHORS:

Andrianov, K. A., Parbuzina, I. L., Sokolov, N. N.

TITLE:

Polymers on the Basis of 4,4'-Dihydroxydiphenylpropane and Phthalic Acids

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4, pp. 518-520

TEXT: In the present paper, the authors report on the condensation of 4,4'-dihydroxydiphenylpropane with phthalic acid, isophthalic acid, and the dimethyl ester of terephthalic acid. The reaction develops in nitrogen at 250°C and forms, with phthalic acid, a polymer having a melting point of 105°C and, with isophthalic acid, a polymer with a melting point of 260°C. As terephthalic acid sublimates at high temperatures, the reaction was carried out with its dimethyl ester in the presence of lead oxide at 300°C. The resulting polymer had a melting point of 280°C. As shown by the Fig., the viscosity during the polymerization increases first rises slowly and then with increasing

Card 1/2

PARCHEVSKI, Vladislav [Parczewski, Wladyslaw] (Warsaw)

Meteorologic conditions causing sudden high waves in small rivers. Khidro i meteorolog no.6:3-8 '61.

1. State Hydrometeorological Institute, Warsaw.

PARCHEVSKIY, G. F.

Dissertation: "The Determination of the Powers of Oscillators in the Spectra of Iron and Nickel." *Sov. Phys-Math Sci, Leningrad State U, Leningrad, 1954.*
(Referativnyi Zhurnal--Khimiya, Moscow, No 12, Jun 54)

SO: SUM 318, 23 Dec 1954

PARCHEVSKIY, G.F.

5

Determination of oscillator strengths for iron and nickel.
G. F. Parchevskii and N. P. Penkin. Vestnik Leningrad.
Univ. 9, No. 11, Ser. Mat., Fiz. i Khim. No. 4, 113-18
(1984).—Values of oscillator strengths f (50 for Fe and 45 for
Ni are tabulated) were detd. by the interferometric method
of "anomalous dispersion" by using the app. previously
described (cf. C.A. 37, 2285; 42, 1799; 44, 8765a).—
The quantity f is evaluated from the formula $f = aK\Delta^2/N\lambda^2$,
where a and K are const., N is concn. of atoms at the lower
level of the transition, and Δ is the distance between inter-
ference bands in the vicinity of the absorption line corre-
sponding to the wave length λ . Ivan Pascal

①
 JF
 Gms

PARCHEVSKIY, G.P.; PENKIN, N.P.

**Oscillator power determination in iron and nickel spectra. Izv.
AN SSSR Ser. fiz. 19 no.1:8-9 Ja-F '55. (MLBA 8:9)**

**1. Fizicheskiy institut Leningradskogo gosudarstvennogo universi-
teta imeni A.A.Zhdanova**

(Spectrum analysis) (Spectrometer)

USSR/Physics - Spectroscopy

PARCHEVSKIY, G.F.

FD-1863

Card 1/1 Pub. 146-23/25

Author : Parchevskiy, G. F., and Penkin, N. P.

Title : The ratio of the forces of oscillators for the components of the resonance doublets of aluminum and copper

Periodical : Zhur. eksp. i teor. fiz. 28, 379, March 1955

Abstract : The apparatus employed in the present work consists of a source of continuous spectrum (SVD lamp with krypton), large interferometer of D. S. Rozhdestvenskiy with distance between mirrors of 30 cm, and spectral device (quartz spectrograph E-1). The apparatus was described in detail by N. P. Penkin (ibid., 17, 355, 1947). By means of it the authors obtained spectrograms containing photographs of absorption lines of Al and Cu, from which the relative values of the f numbers were computed for the components of the doublet. Three references.

Institution: Leningrad State University

Submitted : September 29, 1954

PARCHEVSKIY, G. F.

3

Relative values of the forces of oscillators in the spectrum of titanium and manganese. Yu. I. Ostrovskii, G. F. Parchevskii, and N. P. Penkin (State Univ., Leningrad). *Optika i Spektroskopiya* 1, 821-82 (1956).—The relative probability of transitions in the at. spectrum of Ti (53 lines in the region from 3200 to 5200 Å.) and Mn (10 lines in the 2800-5400 Å. region) had been detd. at $>3000^{\circ}\text{K}$. by an interferometric study according to the method of Rozhdestvenskii and Penkin (*Anomalous Dispersion in Vapors of Metals*, Acad. Sci., U.S.S.R., Moscow, 1951). The relative forces (f) of oscillators for 19 multiplets of Ti from the $a^3\text{P}$ (0-0.05 e.v.), $a^1\text{P}$ (0.81-0.84 e.v.), and $a^1\text{D}$ (0.90 e.v.) levels were tabulated. These values were on the av. below those obtained by different methods (cf. King and King, *C.A.* 32, 2427; van Steklenburg and Smit, *C.A.* 42, 8619). The f values for Mn for transitions from $a^6\text{S}_{7/2}$ to the following states are: to $a^4\text{P}_{7/2}$, 87.4 (5432.548); $a^4\text{P}_{5/2}$,

101 (5394.074); $a^4\text{P}_{3/2}$, 47.9 (4034.490); $a^4\text{P}_{1/2}$, 71.1 (4133.078); $a^4\text{P}_{1/2}$, 100 (4030.755); $a^4\text{P}_{1/2}$, 100 (3224.761); $a^4\text{P}_{1/2}$, 53 (3216.946); $a^4\text{P}_{1/2}$, 50.7 (2501.044); $a^4\text{P}_{1/2}$, 74.2 (2198.371); and $a^4\text{P}_{1/2}$, 100 (2704.817). The triplet $a^4\text{S}_{3/2} - a^4\text{P}_{1/2}$, $1/2, 1/2, 1/2$, differing from the data of Moore (*C.A.* 47, 985d), was less intense than the triplet $a^4\text{S}_{3/2} - a^4\text{P}_{1/2}$, $1/2, 1/2, 1/2$.
A. P. Kollubiy

OSTROVSKIY, Yu.I.; PARGHEVSKIY, G.F.; PERKIN, N.P.

Relative values of oscillator forces in the atomic spectra
of titanium and manganese. Fiz.sbor. no.4:316-318 '58.

(MIRA 12:5)

1. Fizicheskiy institut Leningradskogo ordena Lenina gosudar-
stvennogo universiteta imeni A.A.Zhdanova.

(Titanium--Spectra) (Manganese--Spectra) (Electrons--Vibration)

PARCHEVSKIY, G.F.

4E4-1
30

Relative values of the forces of oscillators in the spectrum of titanium and manganese. V. I. Ostrovskii, G. F. Parchevskii, and N. P. Penkin (State Univ., Leningrad). *Optika i Spektroskopiya*, 1, 821-822 (1956). The relative probability of transition in the at. spectrum of Ti (56 lines in the region from 3200 to 6200 Å.) and Mn (10 lines in the 2800-5400 Å. region) had been detd. at $>3000^\circ\text{K}$. by an interferometric study according to the method of Rozhdestvenskii and Penkin (*Anomalous Dispersion in Vapors of Metals*, Acad. Sci., U.S.S.R., Moscow, 1951). The relative forces (f) of oscillators for 10 multiplets of Ti from the 3P (0-0.05 e.v.), 3P (0.91-0.84 e.v.), and 3D (0.80 e.v.) levels were tabulated. These values were on the av. below those obtained by different methods (cf. King and King, *C.A.* 32, 2427; van Stekelenburg and Smit, *C.A.* 42, 8839). The f values for Mn for transitions from $^6S_{5/2}$ to the following states are: to $^6P_{7/2}$, 67.4 (5432.548); $^6P_{5/2}$,

103 (5394.074); $^6P_{3/2}$, 47.9 (4084.400); $^6P_{1/2}$, 71.1 (4039.073); $^6P_{7/2}$, 100 (4030.755); $^6P_{5/2}$, 100 (8224.701); $^6P_{3/2}$, 53 (2316.946); $^6P_{1/2}$, 50.7 (2801.054); $^6P_{7/2}$, 74.2 (8798.271); and $^6P_{5/2}$, 100 (2794.817). The triplet $^4S_{3/2}$ - $^4D_{3/2}$, $^4D_{5/2}$ differing from the data of Moore (*C.A.* 47, 1965), was less intense than the triplet $^4S_{3/2}$ - $^4P_{1/2}$, $^4P_{3/2}$, $^4P_{5/2}$.
A. P. Kotlobov

for art

BELAYENKO, F.A., prof.; PARCHEVSKIY, L. Ya., inzh.; BORDYUG, S.A., inzh.

Rock creep in the Krivoy Rog Basin. Izv. vys.ucheb. zav.; gor.
zhur. no.5:15-22 1960. (MIRA 14:3)

1, Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy
institut imeni Artema. Rekomendovana kafedroy shakhtnogo
stroitel'stva.

(Krivoy Rog Basin--Rocks)
(Creep of materials)

Parchevskiy, G.P.

24(7)

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Materialy X Vsesoyuznogo soveshaniya po spektroskopii, 1956.
t. II: Atomiya spektroskopii (Materials of the 10th All-Union
Conference on Spectroscopy, 1956, Vol. 2: Atomic Spectroscopy)
Moscow: Izdatel'stvo L'vovskogo univ., 1958. 568 p. (Series: Iuzs;
Pis'mennyy sbornik, vyp. 49) 3,000 copies printed.

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optics and spectroscopy, abnormal dispersion in metal vapors,
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and minerals, photographic methods for quantitative spectrum
analysis of metals and alloys, spectral determination of the
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studies of spectral lines, spark spectrographic analysis,
statistical study of variation in the parameters of calibration
curves determined from spectra of metals, spectral analysis in
metallurgy, thermochemistry in metallurgy, and principles and
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Card 18/31

PAVLENKO, I.Ya.; LOKSHIN, B.S.; PARCHEVSKIY, L.Ya.

Transfer to the caving method of roof control. Ugol' 36 no.4:17-
19 Ap '61. (MIRA 14:5)

1. Shakhta No.17-bis tresta Chistyakovantratsit (for Pavlenko);
2. Dnepropetrovskiy gornyy institut (for Lokshin, Parchevskiy).
(Mining engineering)

PARCHEVSKIY, L.Ya. (Dnepropetrovsk)

Cylindrical bending of a supported cantilever plate taking into consideration the creep properties of the plate and the support. Prikl. mekh. 1 no.1:98-103 '65.

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LOKSHIN, B.S., dotsent; PARCHEVSKIY, L.Ya., gornyy inzhener

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roof rocks in the mining-out of coal seams. Ugol' Ukr. 5
no.12:39-40 D '61. (MIRA 14:12)

1. Dnepropetrovskiy gornyy institut.
(Recording instruments)
(Rock pressure)

YERZHANOV, Zh.S., kand.tekhn.nauk; PARCHEVSKIY, L.Ya., inzh.

Donets Basin rock creeping under the effect of flexure. Izv.
vys.ucheb.zav.; gor.zhur. no.9:51-57 '58. (MIRA 12:6)

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BUTS, Ye.D.; GLYAVIN, V.A.; MISHIN, V.V.; PARCHEVSKIY, I.Ya.;
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Studying the effect of the shock waves during hole blasting
on pillars, ore blocks, and ventilation devices in order to
determine their stability and dimensions. Izv. DGT 42:262-268
'64. (MIRA 18:11)

L 45295-66 EWT(m)/EWP(w)/EWP(v)/T/EWT(t)/ETI/EWP(k) IJP(c) JD/HM/JT/JH
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 AUTHORS: Didyk, R. P.; Parchevskiy, I. Ya. 5/13
 TITLE: Analysis of the welding process for dissimilar metals by an explosion energy 18
 SOURCE: Ref. zh. Metallurgiya, Abs. 1E262
 REF SOURCE: Izv. Dnepropetr. gorn. in-ta, v. 47, 1965, 174-185
 TOPIC TAGS: welding, welding technology, metal joining, copper, aluminum welding, steel / St 10 steel, St 1Kh18N9T steel
 ABSTRACT: Experiments were conducted on welding dissimilar metals by the method of explosion. The following metals were welded together: Al + Cu, Al + St 10, Al + St 1Kh18N9T; Al + Cu. The greatest hardness in the welded connection was noted in the welded zone. It diminished with the distance, and at a given distance it reached the original hardness. V. Pomenko [Translation of abstract]
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PARCHINSKIY, O.Ch., prepodavatel'; SHILIN', A.V. [Silins A.], priraktor

Torsion of the omasum and abomasum in cows. Veterinariia 41,
no.6:77-78 Je '64. (MIRA 18:6)

1. Latviyskaya sel'skokhozyaystvennaya akademiya.

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[Taiwan. Translated from the Chinese] Taiwan'. Perevod so vtorogo kitaiskogo izdaniia M.A. Butenko i V.P. Iliushechkina. Red. P.I. Glushakova. Moskva, Izd-vo inostranoi lit-ry, 1955. 66 p.
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MESHCHERYAKOV, Yu.A.; GORNUNG, M.B.; TIMOFEYEV, D.A.; PARCHEVSKIY, O.K.,
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[Climatic and structural geomorphology] Voprosy klimaticheskoi
i strukturnoi geomorfologii; sbornik perevodnykh statei. Pod
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232 p. (MIRA 13:4)
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PARCHEVSKIY, O.K.,

MITBREYF, B.A., [translator]; BERGER, Ya.M., [translator] REMEZOV, N.P.
redaktor; PARCHEVSKIY, O.K., redaktor; GERASIMOVA, Ye.S., tekhnicheskiy redaktor

[Soils and forests of China; a geographical collection. Translation from the Chinese] Lesa i pochvy Kitaya; geograficheskiy sbornik. Perevod s kitaiskogo B.A.Mitbreita i Ya.M.Bergera. Red. i pred-slovie N.P.Remezova. Moskva, Izd-vo inostrannoi lit-ry, 1955. 164 p.
(China--Soils) (China--Forests) (MIRA 8:6)

PARCHEVSKIY, S.

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PARCHEVSKIY, S.

On Radio Club of the Central Soviet of Osoaviakhim of USSR; construction of amateur television sets "Tag-3" and "TAG-4"

Soviet Source: N: Moskovskiy Komsomolets, No. 61, Moscow, 22 May 1947

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